



## Quant Shop JDFX Develops New Electronic Trading Platform



James Pieron, says that his new trading platform will crunch over 1000 trades per second combined with a quarter of a million rates per minute, helping JDFX stand out, even among the electronic trading global firms. Using adaptive filters and sophisticated neural networks, JDFX, with the help of advanced mathematics, have produced a system that works in a real-time market environment and gives the company the ability to react quickly to changing market conditions. He also claims that his new system is "bank friendly", with three fail-safe procedures that ensure success.

Using a "triple matching system", which only allows a rate execution after obtaining at least 2 other rates, JDFX is protected from accessing liquidity providers currently in an off market status. Another protective feature assigns every incoming rate a "time-to-live" parameter, which prevents any attempt to trade old rates in a slow market. A final system procedure is the application program interface, which automatically inserts a new rate available just prior to execution (the former rate is deleted) so as to protect liquidity providers in a fast running market. JDFX understands this adds raw cost to the company but protects them as well as their banks in a breakaway market and is worth the extra expense.

With 50% of its budget dedicated to R&D, this company is totally committed to maintaining its tech advantage and will continue developing new trading platforms. They are willing to dedicate up to ½ of their team to developing new electronic strategies. Drawing on the mathematical and IT background of CEO, Pieron, the economics knowledge of COO, Ohi, and the expertise of new CIO, Luigi Amato, JDFX is prepared to use its in house talent to keep it at the forefront of electronic trading and development of state-of-the-art computer trading strategies and profit maximization plans.



# JDFX adds FIX and MT4 interfaces



James Piron

JDFX's ITP FX trading platform now offers FIX and MT4 connectivity. James Piron, CEO at JDFX, told our man in Zurich, Larry Levy: "In this time of tight spreads, low latency feeds, and high frequency trading algorithms there is no room for middlemen.

ITP routes trades

directly to the primary sources of liquidity."

On the front-end, ITP can be used as a trading GUI, or to monitor connectivity. On the back-end, ITP is connected to the best-price aggregation of Deutsche Bank, Barclays Capital, Dresdner Bank, Bank of America, UBS, and Morgan Stanley. Depending on physical location, execution is "typically less than 100ms". Orders can be submitted using ITP's "force" option, which guarantees no slippage on the entry or exit. The system incorporates every liquidity band simultaneously on all banks.

More at [www.jdfx.com](http://www.jdfx.com)



# AutomatedTrader

THE GATEWAY TO AUTOMATED AND ALGORITHMIC TRADING

## JDFX releases FIX Connectivity and MetaTrader4 Interfaces to its Institutional Trading Platform

October 16th 2008

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**James D. Pieron, CEO, JDFX: "Markets and their participants will always find a way to increase their efficiency and in this time of tight spreads, low latency feeds, and high frequency trading algorithms there is no room for middlemen."**

JDFX has just released a new version of its Institutional Trading Platform (ITP) that includes interfaces for FIX and MetaTrader4. ITP is intended for automated FX traders who typically turnover more than USD1bn per month but its front end interface can also be used to place manual trades, as well as to monitor FIX and MT4 trading (including any activity generated by MT4's Expert Automated Advisors).

ITP is connected to the best-price aggregation of Deutsche Bank, Barclays Capital, Dresdner Bank, Bank of America, UBS, and Morgan Stanley. Pricing is extremely competitive as the bank aggregation rewards the banks with the best price, thereby promoting an efficient system.

Depending upon physical location, execution typically takes less than 100ms to complete. Orders can be submitted with a unique "force" option, which guarantees no slippage on the entry or exit. Liquidity is deep, as the system incorporates every liquidity band simultaneously on all banks.

In addition to consolidating prices, ITP consolidates counterparty relationships, so there is no need for the lengthy setting up of multiple of individual banking relationships. Settlement takes place each day and no deposit is required

"Markets and their participants will always find a way to increase their efficiency and in this time of tight spreads, low latency feeds, and high frequency trading algorithms there is no room for middlemen. JDFX products route trades directly to the primary sources of liquidity which guarantees traders the best price, best fills, and full transparency on their FX transactions," says James D. Pieron, JDFX CEO.



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# JDFX – Talkin' bout a Revolution?

We review Kontrol, the JDFX new back-end risk management software aimed primarily at the Retail FX broker. And ITP, it's Institutional Trading Platform. e-FOREX spent over a week at the JDFX offices located in central Zurich evaluating their software and IT infrastructure.



James D. Piron, CEO

Michigan, founded JDFX

in 2004 after coming to Switzerland two years earlier to consult for UBS. JDFX initially concentrated on high frequency trading algorithms, but in 2006, decided to focus entirely on its core strength - technology.

## JDFX Core

All JDFX products are connected to a sub-millisecond best-price order routing system called the JDFX Core. The Core is fed exclusively by Tier-1 banks and JDFX appears to be very concerned about the source and quality of their liquidity.

Piron talks about ECN's: "JDFX does not deal with ECN's. Most ECN participants

re-route flow back to the Tier-1 banks with whom they are dealing anyway. This is inefficient and in some cases results in a bank being double hit for the same order.

Routing orders at best-price can save an institution millions, but clever automation needs to respect the banks and the market place.

Our algorithms route all orders that would not have a market impact using best-price and splitting methodologies.

However if an order size would result in a market impact, then our algorithms still choose best-price, but route the entire order to a single liquidity provider," states Piron. "Splitting large orders only results in short-term gain; and ultimately causes the banks to widen their spreads resulting in a long-term loss and a disservice to our institutional clients."

## Kontrol

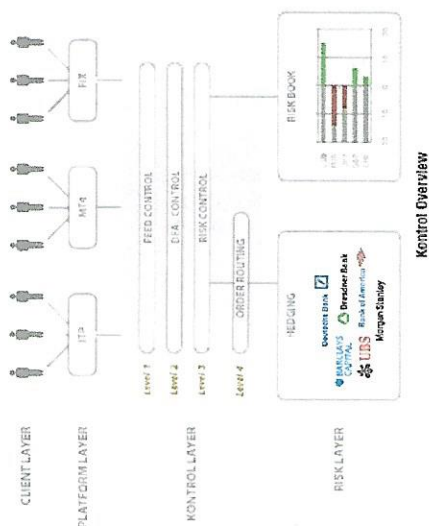
Kontrol is a complete risk management solution for Retail FX brokers, FX money managers, and/or FX trading groups.

Kontrol takes incoming flows from multiple server front-ends, aggregates the net exposure, and optionally hedges the specified risk to Tier-1 banks at best-price. Kontrol offers an overall solution for feed and spread control, automated dealing, intelligent hedging, and custom reporting for regulatory requirements. The software is currently in the final stages of beta testing following a two year development cycle.

*This software may mark the start of a new era in terms of a Retail FX broker's ability to control risk. We at e-FOREX have yet to see anything in the market that currently addresses what this product does.*

## Connectivity

Kontrol offers connectivity to FIX compliant front-ends and additionally has a built-in



Kontrol Overview

MT4 Server Module which, as far as we know, is the first fully functional and stable MT4 bridge on the market.

## Feed & Spread Control

Kontrol allows the seamless management of feeds and spread control. "Broker spreads and pricing controls are easily managed by the broker at the enterprise level by setting up global pricing profiles and pricing groups," says Piron.

The base feed consists of the best-price aggregation of Tier-1 banks. The ongoing server feeders allow the broker to control mark-ups and spreads in real-time. Feeders are fully configurable using global profiles with spreads changed on the fly at the top level.

In addition, the base feed has spike detection and filtration algorithms – something JDFX appears to take very seriously.

## Automated Dealing Desk

Kontrol is a fully automated dealing desk system, confirming current industry trends.

"Manual dealing desks are inefficient, unreliable, less profitable, promote bad customer service, create internal loss prevention problems... I could go on..." equivocates Piron.

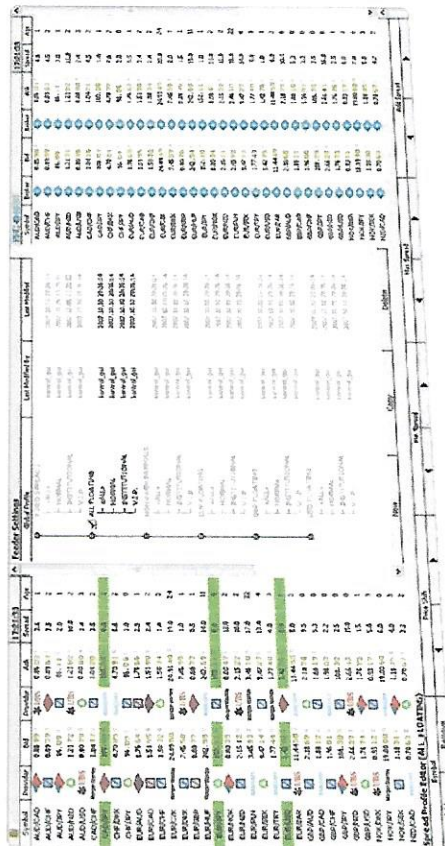
In contrast, "Kontrol will confirm, reject, or re-quote trade requests in less than 100 milliseconds. It is reliable, efficient, and provides a high quality of service to the end client/trader," says Piron.

Kontrol automatically scores each client according to their trading patterns. Scoring is done in real-time and "the system will start to re-quote clients who repeatedly attempt to hit the broker off-market," remarks Piron.



## PRODUCT REVIEW

## The e-FOREX Product Review



## Feed Control

"The days of switching-off a client are over. A broker should give their clients every opportunity to enter the market. Kontrol works in real-time and allows clients to work themselves out of the penalty box by trading in a friendlier and on-market manner," he adds.

## Risk Control

Kontrol facilitates instant real-time hedging of individual clients, servers, groups, or the entire aggregated exposure across all incoming streams by currency.

Pieron gives us a practical example:

"One forex broker we are bringing on is currently



## Risk Control

spreads. Brokers should remain in a constant state of optimizing their business and improving their margins," warns Pieron.

## Discretionary Client Bucketing

"Often brokers insist on dicing their customers into different groups and different servers – hedging some of them while taking the risk on others. They are constantly adjusting and tweaking them trying to increase profits and reduce risk. Ultimately this practice is inefficient and these inefficiencies cost money and put the broker at risk," says Pieron.

## Intelligent Hedging

Kontrol hedges overall currency exposure – not individual currency pair exposure.

"Reducing exposure by currency pair is inefficient and costs the broker money," says Clive Diethelm, JDFX Chief Technology Officer.

"Consider a simple example," he continues.

"A broker is running the risk book below with a hedging limit set at 1 million on each currency pair:

EUR/USD	-800,000
EUR/CHF	600,000
USD/CHF	-1,000,000

The brokers book is effectively flat. However, since the USD/CHF exposure exceeds the limit, the brokers hedging software goes out to market and hedges the pair. In short, the broker just paid spread to create

USD/CHF exposure where there was none.

Kontrol ensures that the broker hedges only what is necessary using the most inexpensive route available."

## Regulatory Risk

With an increasing regulatory emphasis on G10 jurisdictions on FX brokerage, capital requirements and real time risk control have become increasingly important.

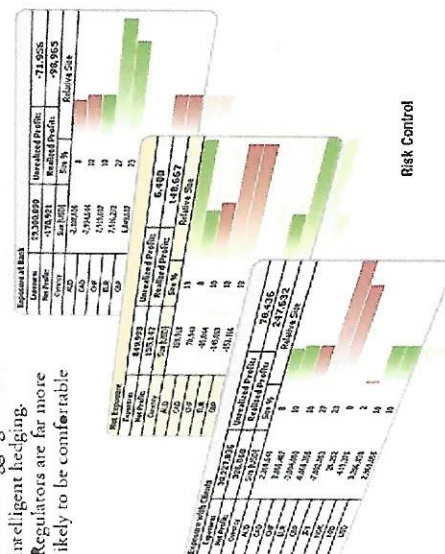
"Brokers calculating risk several times a day from multiple servers using, for example, Excel spreadsheet macros, are running very real risks," says Pieron.

"Lack of risk control has already sunk a number of large forex brokers as well as the fact that they continue to lose money every minute they lack real time aggregated and intelligent hedging.

Regulators are far more likely to be comfortable

when they know that the broker has the technology to identify risk and manage risk accurately, reliably, and in real time," he adds.

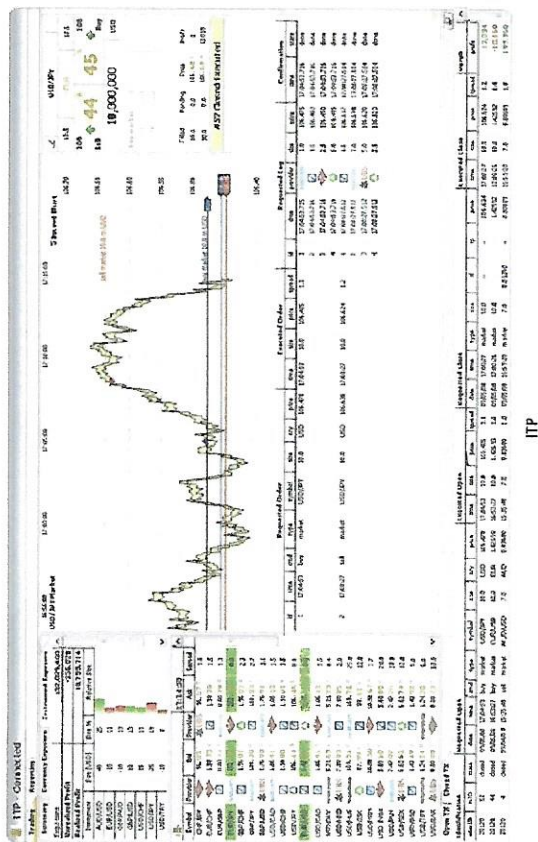
We asked Diethelm to highlight an example of Kontrol working in a fund environment:



## Risk Control



## PRODUCT REVIEW



"Funds have similar problems to brokers," says Diethelm. "That is, their risk is being managed based on daily P&L, rather than by aggregated real-time exposure. For that reason, FX Funds are a good example of who would benefit from our Institutional Trading Platform (ITP) and Kontrol working together."

By plugging ITP into Kontrol, advisors and traders benefit from best-price execution which increases their bottom line performance. The parent fund benefits by having real time NAV, controlling their exposure, and monitoring all their advisors in real time," highlights Diethelm.

**ITP**  
ITP is the JDFX front-end trading platform. The Java based system has a very sharp look and feel to it, but essentially seems to offer the same type of functionality as other FX front-ends.

On the ITP back-end however, we found the JDFX Core - a powerful best-price execution engine and order routing system with direct connectivity to many of the large FX players.

#### Performance

"The performance of a trader and/or fund is determined by both strategy and execution - one is no more important than the other - depending on trade

frequency and leverage, bad execution can cost thousands of basis points in EOY performance."

One fund now executing via ITP claims an average savings of around \$250,000 per week, or \$12 million a year," says Pierson.

We spoke to Clive Diethelm about ITP's latency and execution and he gave us some actual examples of ITP's execution performance:

"First I will demonstrate a live \$10 million EURUSD order. The order executed at 0.9 pips spread and used three banks to get the job done. Trading time was approximately 120 milliseconds."

Let's take a larger example of a live 50 million EURUSD order. In this case our algorithm determined that the trade size would have an impact on the market. For that reason, the JDFX Core switched liquidity bands on the fly and gave the entire amount to the bank with the best-price on the 50 million liquidity band, which in this case, was Deutsche Bank. Trading time was approximately 75 milliseconds."

#### Transparency

ITP customers' trades are fully transparent. Each order is routed directly to their Prime Broker and/or bank account using STP (Straight Through Processing). ITP customers can verify orders, trades, and rare reference IDs via their own bank statement.

"Institutional customers have no desire to deposit margin with a middleman. With ITP, they are dealing direct with the banks via our platform and an end of day give-up," says Pierson.

#### JDFX IT Infrastructure

Currently JDFX has redundant servers in Zurich and London, with New York and Singapore to be added shortly.

Each data center is capable of handling the entire load itself and is connected independently to the Tier-1 banks in its corresponding jurisdiction.

Apart from redundancy, the function of multiple locations is to reduce latency. "By positioning our servers close to the banks we are dealing with, we can often save hundreds of milliseconds in latency and give the banks better flows and our clients better execution," states Diethelm.

#### Conclusion

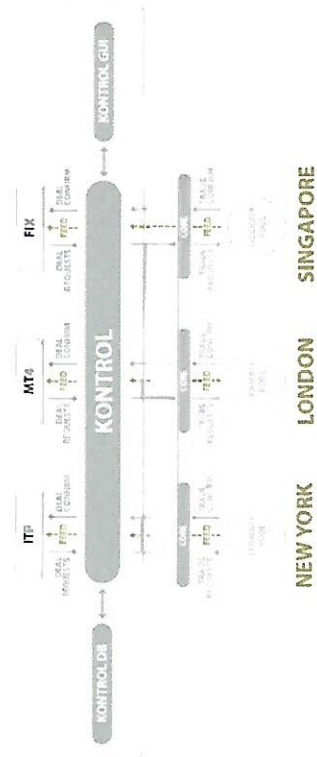
Around 20 people work at JDFX Technologies AG today. Most of these people are techies, some of them shareholders. The corporate culture is serious but casual, lending itself to innovation.

Our guess is that JDFX will grow rapidly if the take up on the JDFX products grows as the company expects.

ITP fills a gap in the market, perhaps creating "a third way." Instead of dealing either via an ECN or with a single bank, ITP provides a ready interface to pooled out trades at size, and at best-price, direct to banks.

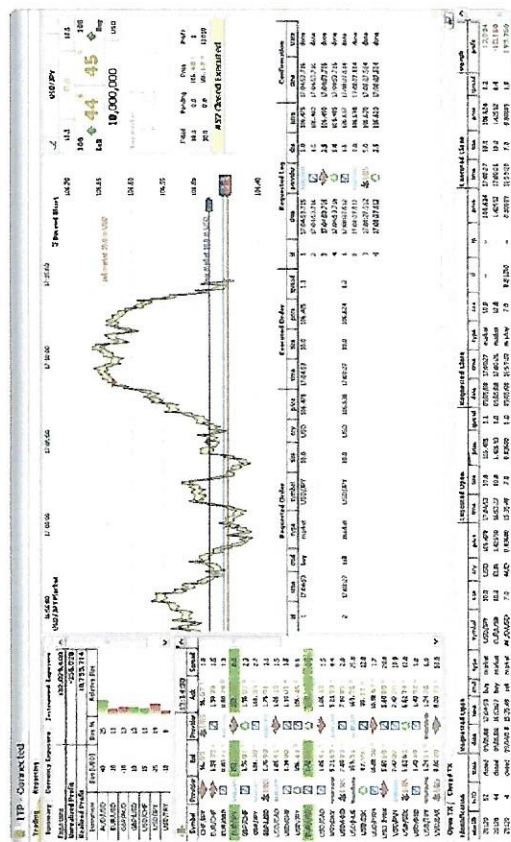
The Kontrol solution offers not only the promise of superior, real-time risk control but also increased profitability. In fact, both packages arguably increase profitability and this appears to be their strongest appeal.

Finally, Pierson appears to appreciate the vital importance of keeping banks and dealing customers happy at the same time. This is the basis on which JDFX operates. It simply has to operate this way, as the success of the system depends ultimately on the goodwill of its participants.



Product Connectivity

## PRODUCT REVIEW



STEP

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## INDEX IT Infrastructure

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Each data center is capable of handling the entire load itself and is connected independently to the Tier-1 banks in its corresponding jurisdiction.

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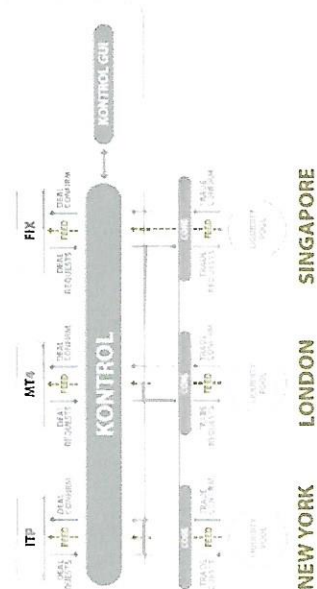
TTP fills a gap in the market, perhaps creating "a third way." Instead of dealing either via an ECN or with a single bank, TTP provides a ready interface to parceled-out trades at size, and at best-price, direct to banks.

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## Conclusion

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Product Connectivity



Friday, October 26, 2007

#### JDFX Rises up:

At the time, the company's chief executive, James Pieron, was adamant that JDFX had great technology and good trading models but that its only problem had been to be so trusting of someone's reputation. There's no doubt that JDFX went through a difficult period and that it was forced to look at what it was trying to achieve as it struggled to carry on its business.

Over the past 12 months, JDFX has doubled its workforce to 22 staff and, not surprisingly, it has invested in support services, such as legal and accounting. Pieron says that as well as its fund businesses, JDFX now provides technology and risk management solutions. The last two are responsible for the major boost it appears about to receive.

JDFX is poised to unveil a joint venture with Saxo Bank aimed at the community of Meta Trader users. Meta Trader is an off-the-shelf, front-end trading platform that is used by about 200 brokers. However, its limitation is that it comes with no liquidity, reliable data feed, or risk management.

According to Christian Frahm, senior executive director at Saxo, the joint venture has huge potential: "JDFX's risk management technology is really good, while we are experts at providing liquidity and hedging risk. This is a very good partnership."

Of course, many will find it ironic that JDFX is now regarded as an expert on risk management, but only idiots fail to learn from experience. Frahm says the Meta Trader community is arguably one of the biggest potential liquidity pools in FX. If this proves the case, the JV, which is currently in beta testing with a couple of clients, will seal the stamp on JDFX's revival and add further to Saxo's success story.

Pieron says: "The JV will allow FX retail brokers to manage their risk from one central point regardless of their size, location, and/or number of servers. Hedging can be controlled at the client, group, or exposure level. The product also regulates fair pricing and execution."

He concludes: "Saxo has provided a safe and regulated place for retail brokers to keep their customer funds. The JV product and partnership is not only good for JDFX and Saxo but it is good for the entire retail FX trading community."



# FX-Week

## JDFX gets smart with Kontrol

October 13th 2008

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By Susanna Robinson

ZURICH - Foreign exchange trading company JDFX has capitalised on an increasing focus on risk management within financial markets by launching Kontrol, a system built to eliminate inefficiencies and dangers caused by calculating risk several times a day from multiple servers.

Kontrol, which will be beta-launched on November 15 after two years in development, fully automates the pricing, processing and risk management of FX transactions. The product is aimed at FX brokers, FX funds/funds of funds, managers, banks and financial institutions, or entities entering into foreign currency exchange transactions, and interfaces with MT4, FIX and JDFX's front-end trader, Institutional Trading Platform (ITP).

The product features built-in filtering algorithms, which filter spikes and off-market rates. Spreads and mark-ups are configurable, while custom feeders pipe directly into both MT4 and FIX servers.

Kontrol offers an automated dealing desk and confirms, rejects, or re-quotes trade requests in under 100 milliseconds. It automatically scores the source of the trade request and will re-quote trade requests that attempt to trade off market.

The system monitors risk using three tables: exposure to clients, exposure with the bank(s) and overall net exposure. The product facilitates real-time hedging of individual clients, groups, servers or entire aggregated currency exposures across all incoming streams using JDFX liquidity.

Trades and hedges are routed using the best-price aggregation of Tier I bank feeds, which include Deutsche Bank, Barclays Capital, Dresdner Bank, Bank of America and Morgan Stanley.

The launch of Kontrol follows the November 2007 rollout of JDFX's front-end trading platform, ITP.

A spokesperson at JDFX said a large FX hedge fund currently trading live on ITP has estimated its spread savings to be around \$250,000 a week, or approximately \$12 million per annum.



# HEDGEWORLD

## Behind the Money

### Quant Shop JDFX Achieves Sub-BP Spread on \$20 Billion Forex Trades

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**By Martin de Sa’Pinto, Senior Financial Correspondent**

ZURICH, Switzerland (HedgeWorld.com)—Forex fund JDFX is to re-launch before the end of the year. The management and technical staff at the young quant shop are very excited about their alpha program which consists of three automated trading strategies (trend, countertrend, and inventory) which have a correlation of less than five percent. In addition to their strategies, they are particularly proud of their in-house developed trading platform which they say has recently achieved sub-millisecond trade execution.

James Pieron, CEO of JDFX, told HedgeWorld that the algorithms developed in-house use advanced mathematical methodologies for real-time market adaptation. These include adaptive filters and neural networks, and give the firm the flexibility to react to changing market conditions, said Mr. Pieron. The trading platform can process over 1000 trades per second and ¼ million rates per minute, he said.

“In addition to performance our system is bank friendly”, added Mr. Pieron. He explained that the system has three counter measures to prevent hitting liquidity providers off-market. The first is a triple matching system which doesn’t allow a rate to be executed unless it is matched by at least two other rates from two different banks. The second assigns each in-coming rate a time-to-live (TTL) parameter, and will not attempt to trade old rates in a slow-moving market. The third is a “last look” at the application program interface (API) level before execution. That is, if a new rate has arrived at execution time, the old rate is automatically swapped for the new. While this “last look” mechanism may increase costs to the firm around 85% of the time, it will protect the liquidity providers in a fast-moving market.

Liquidity providers and banks working with JDFX must also be quite excited. Jeff Ohl, COO at the firm, said that the firm believes it has a significant technological advantage and plans to maintain this by devoting 50% of its budget to researching and developing new profitable alpha trading strategies. Half of the entire team will be working on research and development. All have technology or science background, with four of them arriving from ETH, Europe’s answer to MIT. The CIO, Luigi Amato, holds a CFA and was previously a quantitative analyst at Horizon 21. Mr. Ohl, has a background in economics with 15 years at well-known financial institutions including JP Morgan, Credit Suisse and UBS, and Mr. Pieron has a mathematical and IT background followed by many years’ designing and implementing automated systems for organizations that include the US Department of Defense, Sun Microsystems and the Bureau of Criminal Investigation.

The company suffered something of a setback earlier in the year when one of its relationship managers, a well-known trader in Zurich FX circles named Alfred Johnstone who had been with JDFX for nine months, began bypassing the computer system and making direct trades with liquidity providers via a messaging system. He walked out minutes before discovery.

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